**3GPP TSG-RAN WG4 Meeting #116-bis R4-2514036**

**Prague, CZ, 13th – 17th October 2025**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.176-2** | **CR** | **-** | **rev** | **-** | **Current version:** | **19.2.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <http://www.3gpp.org/Change-Requests>.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | (TEI19-BDaT\_simp\_improvement) CR to TS 38.176-2: spec structure simplification for co-locationco-existence requirements | | | | | | | | | |
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| ***Source to WG:*** | ZTE Corporation | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19 | | | | |  | ***Date:*** | | | 2025-10-03 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to the RAN task, the spec structure simplification for transmitter spurious emission in subclause 6.7.5.4.5.1 and 6.7.5.5.5.1. | | | | | | | | |
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| ***Summary of change:*** | | The table is simplified to include the general requirement level | | | | | | | | |
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| ***Consequences if not approved:*** | | If not approved, the specification cannot be improved as requested by RAN task. | | | | | | | | |
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| ***Clauses affected:*** | | 2, 6.7.5.4.5.1 and 6.7.5.5.5.1 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

*<Start of the change>*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.174: "NR; Integrated access and backhaul radio transmission and reception".

[3] 3GPP TS 38.176-1: " NR; Integrated Access and Backhaul (IAB) conformance testing; Part 1: Conducted conformance testing".

[4] 3GPP TS 38.104: "NR; Base Station (BS) radio transmission and reception".

[5] 3GPP TS 38.141-1: "NR, Base Station (BS) conformance testing, Part 1: Conducted conformance testing".

[6] 3GPP TS 38.141-2: "NR, Base Station (BS) conformance testing, Part 2: Radiated conformance testing".

[7] 3GPP TS 38.211: "NR; Physical channels and modulation".

[8] 3GPP TS 38.212: "NR; Multiplexing and channel coding".

[9] 3GPP TS 38.213: "NR; Physical layer procedures for control".

[10] Recommendation ITU-R SM.329: "Unwanted emissions in the spurious domain".

[11] ERC Recommendation 74-01: "Unwanted emissions in the spurious domain".

[12] Recommendation ITU-R M.1545, "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".

[13] Recommendation ITU-R SM.328: "Spectra and bandwidth of emissions".

[14] "Title 47 of the Code of Federal Regulations (CFR)", Federal Communications Commission.

[15] 3GPP TR 25.942: "RF system scenarios".

[16] 3GPP TS 38.101-1: "NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone".

[17] 3GPP TS 38.101-2: "NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone".

[18] 3GPP TS 38.101-4: "NR; User Equipment (UE) radio transmission and reception; Part 4: Performance requirements".

[19] IEC 60 721-3-3: "Classification of environmental conditions - Part 3-3: Classification of groups of environmental parameters and their severities - Stationary use at weather protected locations".

[20] IEC 60 721-3-4: "Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Clause 4: Stationary use at non-weather protected locations".

[21] IEC 60 721: "Classification of environmental conditions".

[22] IEC 60 068-2-1 (2007): "Environmental testing - Part 2: Tests. Tests A: Cold".

[23] IEC 60 068-2-2: (2007): "Environmental testing - Part 2: Tests. Tests B: Dry heat".

[24] IEC 60 068-2-6: (2007): "Environmental testing - Part 2: Tests - Test Fc: Vibration (sinusoidal)".

[25] 3GPP TR 37.941: "Radio Frequency (RF) conformance testing background for radiated Base Station (BS) requirements".

[26] 3GPP TR 38.901: "Study on channel model for frequencies from 0.5 to 100 GHz".

[27] 3GPP TS 38.214: "NR; Physical layer procedures for data".

[28] 3GPP TS 38.521-1: "NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 standalone".

[29] 3GPP TS 38.521-2: "NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 standalone”.

[30] 3GPP TS 38.300: “NR; NR and NG-RAN Overall description; Stage-2”.

[31] Commission Implementing Decision (EU) 2020/590 of 24 April 2020 amending Decision (EU) 2019/784 as regards an update of relevant technical conditions applicable to the 24,25-27,5 GHz frequency band

[32] 3GPP TS 25.104: "Base Station (BS) radio transmission and reception (FDD) "

[33] 3GPP TS 36.104: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception"

*<Next of the change>*

##### 6.7.5.4.5 Test requirement

6.7.5.4.5.1 Test requirement for *IAB type 1-O*

The power of any spurious emission shall not exceed the test limits in table 6.7.5.4.5-1 for a IAB where requirements for co-existence with the system listed in the first column apply. For a *multi-band RIB*, the exclusions and conditions in the table 6.7.5.4.5-1 apply for each supported *operating band*.

Table 6.7.5.4.5.1-1: IAB-DU and IAB-MT spurious emissions basic limits for co-existence with systems operating in other frequency bands

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| **System type to co-exist with**  **(Note 4)** | **Frequency range for co-existence requirement (MHz) (Note 5)** | ***IAB-DU type 1-O* Test limits (dBm)** | ***IAB-MT type 1-O* Test limits (dBm)** | **Measurement bandwidth** | Notes |
| --- | --- | --- | --- | --- | --- |
| GSM850 or CDMA850 | 869 - 894 | -45.4 | -45.4 +Y | 100kHz | Note 1 |
| 824 ‑ 849 | -49.4 | -49.4 +Y |
| GSM900 | 921 ‑ 960 | -45.4 | -45.4 +Y |
| 876 - 915 | -49.4 | -49.4 +Y |
| DCS1800 | 1805 ‑ 1880 | -35.4 | -35.4 +Y |
| 1710 - 1785 | -49.4 | -49.4 +Y |
| PCS1900 | 1930 ‑ 1990 | -35.4 | -35.4 +Y |
| 1850 ‑ 1910 | -49.4 | -49.4 +Y |
| UTRA, E-UTRA or NR | Uplink *operating band* 22 and  UTRA FDD Band XXII | -37 | -37 +Y | 1MHz | Note 1 |
| Downlink *operating band* 22, 42, 43 n48/48, n77, n78 and  UTRA FDD Band XXII | -40 | -40 +Y |
| n46/46, 47, n79, n96, n102, n104 | -39.5 | -39.5 +Y |
| n82, n89 | -45.4 | -45.4 +Y |
| Downlink *operating band* n83, n85/85, n86 | -49.4 | -49.4 +Y |
| Uplink *operating band* n84, n85/85 | -35.4 | -35.4 +Y |
| n81, uplink *operating band* n93 and other downlink *operating band* | -40.4 | -40.4 +Y |
| Downlink *operating band* n93 and other uplink *operating band* | -37.4 | -37.4 +Y |

NOTE 1: As defined in the scope for spurious emissions in this clause the co-existence requirements in table 6.7.5.4.5.1-1do not apply for the ΔfOBUE frequency range immediately outside the downlink *operating band* (see table 5.2-1). Emission limits for this excluded frequency range may be covered by local or regional requirements.

NOTE 2: Table 6.7.5.4.5.1-1 assumes that two *operating bands*, where the frequency ranges in table 5.2-1 would be overlapping, are not deployed in the same geographical area. For such a case of operation with overlapping frequency arrangements in the same geographical area, special co-existence requirements may apply that are not covered by the 3GPP specifications.

NOTE 3: Y = - 9 + 10log10(NTXU,OTApercell) dB

NOTE 4: Does not apply for co-existence with standalone downlink bands (SDO) defined in TS 36.104 [33], table 5.5-1.

NOTE 5: Frequency range of UTRA, E-UTRA and NR bands, as described in TS 25.104 [32] clause 5.2, TS 36.104 [33] clause 5.5 and TS 38.104 [4] clause 5.2, respectively.

*<Next of the change>*

6.7.5.5.5.1 Test requirement for *IAB type 1-O*

These requirements may be applied for the protection of other IAB receivers when GSM900, DCS1800, PCS1900, GSM850, CDMA850, UTRA FDD, UTRA TDD, E-UTRA and/or NR BS are co-located with a IAB Node.

The requirements assume co-location with base stations of the same class.

NOTE: For co-location with UTRA, the requirements are based on co-location with UTRA FDD or TDD base stations.

This requirement is a co-location requirement as defined in clause 4.9, in TS 38.174 [2], the power levels are specified at the CLTAoutput.

The output of the CLTA of any spurious emission shall not exceed the test limit in table 6.7.5.5.5.1-1.

For a *multi-band RIB*, the exclusions and conditions in the table 6.7.5.5.5.1-1 apply for each supported operating band.

Table 6.7.5.5.5.1-1: *IAB-DU and IAB-MT spurious emissions basic limits for co-location with BS or IAB-Node*

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| **Frequency range of uplink operating band of** | **System type to** | **Test limits (dBm/100kHz)**  **(Note 1)** | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **the co-located BS or IAB-Node (MHz)**  **(Note 5)** | **co-locate with**  **(Note 4)** | **WA IAB-DU** | **WA IAB-MT** | **MR IAB-DU** | **LA IAB-DU** | **LA IAB-MT** |
| 824 - 849 | GSM850 or CDMA850 | -115.9 | -115.9 +Y | -108.9 | -87.9 | -87.9 +Y |
| 876 - 915 | GSM900 | -115.9 | -115.9 +Y | -108.9 | -87.9 | -87.9 +Y |
| 1710 - 1785 | DCS1800 | -115.9 | -115.9 +Y | -108.9 | -97.9 | -97.9 +Y |
| 1850 - 1910 | PCS1900 | -115.9 | -115.9 +Y | -108.9 | -97.9 | -97.9 +Y |
| n51/51 | E-UTRA or NR | N/A | N/A | N/A | -105.9 | -105.9 +Y |
| n46/46, n53/53 | E-UTRA or NR | N/A | N/A | -108.9 | -105.9 | -105.9 +Y |
| n96, n102 | NR | N/A | N/A | -107.6 | -104.6 | -104.6 +Y |
| n104 | NR | -112.6 | -112.6 +Y | -107.6 | -104.6 | -104.6 +Y |
| n79 | NR | -113.6 | -113.6 +Y | -108.6 | -105.6 | -105.6 +Y |
| UTRA FDD Band XXII or E-UTRA Band 22, 42, 43, n48/48, n77, n78 | UTRA, E-UTRA or NR | -113.7 | -113.7 +Y | -108.7 | -105.7 | -105.7 +Y |
| Other *operating band* | UTRA, E-UTRA or NR | -113.9 | -113.9 +Y | -108.9 | -105.9 | -105.9 +Y |

NOTE 1: As defined in the scope for spurious emissions in this clause, the co-location requirements in table 6.6.5.2.3-1 do not apply for the frequency range extending ΔfOBUE immediately outside the transmit frequency range of a IAB-MT and IAB-DU. The current state-of-the-art technology does not allow a single generic solution for co-location with other system on adjacent frequencies for 30dB antenna to antenna minimum coupling loss. However, there are certain site-engineering solutions that can be used. These techniques are addressed in TR 25.942 [15].

NOTE 2: Table 6.6.5.2.3-1 assumes that two operating bands, where the corresponding transmit and receive frequency ranges in table 5.2-1 would be overlapping, are not deployed in the same geographical area. For such a case of operation with overlapping frequency arrangements in the same geographical area, special co-location requirements may apply that are not covered by the 3GPP specifications.

NOTE 3: Y = - 9 + 10log10(NTXU,OTApercell) dB.

NOTE 4: Does not apply for co-location with V2X operation defined in TS 36.104 [33], table 5.5-1.

NOTE 5: Frequency range of UTRA, E-UTRA and NR bands, as described in TS 25.104 [32] clause 5.2, TS 36.104 [33] clause 5.5 and TS 38.104 [4] clause 5.2, respectively.

*<End of the change>*